

UNIVERSITY OF SALAHADDIN
COLLEGE OF SCIENCE
DEPARTMENT OF BIOLOGY

Q 1/ Give a brief answer for each statement according to the picture provided:

1. A / Name and classify this culture medium

B/Which types of bacteria would be isolated on this medium

2. A/ Name this method.

B/ Aim of this method.

3. A. Name the culture medium (uninoculated)

B. What is the colony and growth characteristic?

C. Identify the isolated bacteria.

4. A. Name the test B. Identify the positive tube

5. A/ What is the inoculation technique in tubes A and B?

B/ Tube **B** shows different reactions, mention all of them.....

A/ Which tube is the MIC?

B/ Which tube is the MBC?

C/ How...explain?

The agar was used in antibiotics sensitivity test by Method, because this bacterium is

A/ Write the name of this group of tests.

B/ Name the pH indicator in tube **D**.

C/ Give an example of the bacterium with the same results.

6. A / Identify the bacterium (Genus only) in 1 and 2

B/ Type of specimen (Direct or indirect).in 1 and 2

Q 2/ Answer the following questions in the space provided.

A/ What will you do in the following situations?

1. After using the microscope.

2. If you are injured in lab.

B/ How can you differentiate between β – hemolytic *Streptococcus pyogenes* and *Streptococcus agalactiae*.

C/ What is the principle of the OXIDASE test? And what does it tell you about the bacterial oxygen requirements? MENTION A POSITIVE BACTERIAL EXAMPLE

D/ Our recipe (Direction) for MacConkey agar is to suspend 50 grams of powder for preparing 1 liter. How many grams of powder is needed to prepare 200 mL of MacConkey agar medium?

Q 3/ True or False: Place a T or F in front of each of the following questions:

- Microbiologist uses several types of primary media set at once to culture the specimen initially.
- Differential media allow the growth of more than one microorganism of interest but with morphologically distinguishable colonies.
- Lysis of blood cells is due to streptolysin S&O in group B streptococci
- *Neisseria meningitidis* is difficult to treat.

Q 4/ If A patient with otitis media infection was diagnosed with *streptococcus pneumoniae*.

A: What is the specimen?

B. What are the steps required in identifying and diagnosing this bacterium?

Good Luck Dear...

MSc. Ala J. Ahmad